

# Environment at Petrified Forest National Park

## The Raven's Sweet Song

*Did ever raven sing so like a lark That gives sweet tidings of the sun's uprise?*

~~William Shakespeare,  
*Titus Andronicus*

Perhaps ravens do not have the sweetest song, but these confident birds do have one of the most diverse vocabularies in the North American bird world. Researchers have recognized the diversity and complexity of raven "language" including the interesting fact that raven's may have a regional "accent".

Individuals also seem to have their own choice of sounds representing meaning—one bird's "quork" may be another bird's "tock".



One of the most common birds seen in Petrified Forest National Park, the ravens stalk visitors at overlooks and trailheads as if to excise a food tax. Do not fall prey to their charms! Ravens may have the knack of coercion, but they have an important job in the park: eating carrion among other choice items.

Ravens are large birds, standing an average of two feet tall with a wingspan up to four and a half feet. Not only impressive in size, ravens sport deep black feathers with a metallic sheen of purple, violet, blue, even green, depending on the light source. As they croak and chortle, ravens seem to have a fluffy throat due to the spade-shaped feathers. The tail is wedge-shaped in flight—distinguishing ravens from crows (as well as their more solitary nature). As the raven marches up to you, the heavy beak will no doubt impress. Be warned! The raven knows how to use it!

While rodents, insects, seeds, fruit, eggs, and practically anything else make up the ravens' diet, these opportunistic birds eat a great deal of carrion, an important niche in the ecosystem. Particularly in the winter, they can be seen cleaning up along the freeway and park road. Unfortunately, people food can distract ravens from their natural diet, leaving them sick or starving in the slow season. Besides, you've seen that heavy bill! Would you want to endanger yourself by trying to feed such a bird?

While not joining great flocks like crows, ravens are social within small family groups. Mates and relatives will cozy up next to one another. During winter, ravens in the park have been seen exchanging gifts of snow. Best left to their natural behavior, ravens can truly be a joy to watch. Strong fliers, ravens soar through the air, sometimes in pairs that play on the air. Like stunt pilots, they will perform barrel-rolls and false dives. Watch for these beautiful, intelligent residents of Petrified Forest National Park.



Snowmelt fills one of the park's many washes.

*I have need of the sky,  
I have business with the grass;  
I will up and get me away where the hawk is wheeling  
Lone and high,  
And the slow clouds go by.*

~~ Richard Hovey (1864-1900), *I have Need of the Sky*



## When is a Desert?

Deserts can be difficult to define—sometimes they are more a state of mind. As explorers and pioneers broached the interior of North America, they called the vast unknown the Great American Desert, what is now called the Midwest and high plains, not what most refer to as a desert. Historically, *desert* has been a term used for something stark and not useful to humans, a place where it is difficult to live and/or grow crops. Other words applied to such places are *barrens*, *badlands*, *malpais*, and so on. Today, the term *desert* is usually applied to specific ecosystems.

About one-third of the Earth's land surface is considered some type of desert. As an environment, deserts are considered arid lands with little rainfall, low humidity, and sparse flora and fauna. The connotation of deserts for human-use has changed. Deserts have become desirable for habitation and recreation. Where once pioneers cursed and died, hikers revel in the stark beauty and silence. Where early inhabitants seemed to scratch for a living, ritzy subdivisions are changing the landscape. Humans grow citrus, dates, cotton, nuts, and many other crops in desert environments around the world.

Heat does not make a desert, nor do cactuses or sand. Sand can be found in temperate woodland streams and along tropical beaches. Cactuses are found throughout the Americas, including unexpected places like Minnesota and Ontario. Deserts can be hot like the Sahara or cold like the Gobi. There are nearly as many definitions of *desert* as there are deserts in the world. Scientific classifications of deserts rely on combinations of number of days of rainfall during a year, annual rainfall, temperature, humidity, vegetation, geography, and global circulation patterns.

Based on Peveril Meigs' desert categories, a widely accepted system since the 1950s, extremely arid lands have at least 12 consecutive months without rainfall (such as the Atacama Desert in South America), arid lands have less than 250 millimeters (9.8") of annual rainfall (like the Sonoran Desert of the United States and Mexico), and semiarid lands have a mean annual precipitation of between 250 and 500 mm (9.8" to 19.7"). Arid and extremely arid land are deserts, and semiarid grasslands generally are referred to as steppes—the environment in which Petrified Forest National Park is located.

Petrified Forest National Park is part of the Colorado Plateau, parts of which are sometimes called high desert. This reference reminds us of the time that people called places deserts in a cultural sense, many visitors finding the Colorado Plateau beautiful, but relatively uninhabitable—more familiar to temperate or boreal woodlands or the urban coasts. High desert is sort of a nickname, referring to a region that is actually a very complex quilt of semi-arid grassland and steppe, pinyon-juniper woodlands, and great stretches of rock and badlands. When is a desert? As you can see, sometimes it depends on the beholder.



Rabbit brush, snakeweed, and pale blue trumpet punctuate the blooming grassland

*To make a prairie it takes a clover and one bee—  
And revery—  
The revery will do  
If the bees are few.*

~~Emily Dickinson, *Complete Poems of Emily Dickinson*, 1955